

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2A Exhibit)						February 2003				
BUDGET ACTIVITY 2 - Applied Research			PE NUMBER AND TITLE 0602785A - Manpower/Personnel/Training Technology				PROJECT 790			
COST (In Thousands)			FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate
790	PERSONNEL PERFORMANCE & TRAINING TECHNOLOGY		14367	13070	15548	15607	15897	16596	16847	17192
<p><u>A. Mission Description and Budget Item Justification:</u>The objective of this program is to provide the scientific and technical basis for personnel selection, leader development, and training that will ensure that the human component of warfighting can maximize the benefit of transformations in advanced technologies, weapons, and equipment (e.g., Future Combat Systems) and can perform effectively in Objective Force operations. This applied research program will provide methods, techniques, and tools to improve the assignment procedures to ensure the right person is placed in the right job, develop improved methods for developing leader cognitive skills, and provide the behavioral science technologies required for the development of effective individual and collective (unit) training strategies. Research topics include training strategies for the digitized battlefield; strategies to maximize the training effects in simulated environments; optimum designs and utilization of simulators and training devices to achieve maximum learning at minimum cost; and modernization of the selection and classification systems to maintain warfighting capabilities for future forces. Beginning in FY 2004, a major thrust of this program will be to expand Leader Development applied research beyond the existing work on more effective methods to develop the critical thinking skills that leaders must have to make effective battlefield decisions in rapidly changing operational situations and in information-rich environments. Additional research will be initiated on developing the interpersonal skills needed by small unit leaders to rapidly form cohesive teams with continuously changing mission requirements and personnel turbulence, and to effectively operate with diverse groups (joint, multi-cultural, interagency, etc.); and on developing mentoring and coaching skills so leaders can support early development of leadership skills and adaptability in younger leaders. Research in this PE is consistent with the Army Science and Technology Master Plan, the Army Modernization Plan, and Project Reliance and supports the Human Systems - Personnel, Training, and Leader Development - Defense Technology Area. It supports the Objective Force transition path of the Transformation Campaign Plan. This PE is managed by the U.S. Army Research Institute for the Behavioral and Social Sciences (ARI) and contains no duplication with any effort within the Military Departments.</p> <p>This program does not contain Defense Emergency Response Funds.</p>										

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<u>Accomplishments/Planned Program (continued)</u>		FY 2002	FY 2003	FY 2004	FY 2005	
Training: In FY02, determined the behaviors that need to be performed by computer-simulated forces to train effectively for urban operations and the best methods to accomplish the training; identified key C4ISR skill requirements and preliminary measures of proficiency for commanders and staffs operating advanced technology systems; improved rotary-wing flight training intelligent tutoring systems with enhanced visual system; and evaluated techniques to train and assess situational awareness so small unit leaders can take full advantage of battlefield information. In FY03, incorporate advanced simulation methods into new qualification instruction for OH-58D helicopters and test for improved performance, safety, and reduced costs; identify requirements for automated tools to measure C4ISR skills; identify methods to train small units to identify critical battlefield information to fully utilize capabilities of evolving soldier systems (e.g., OFW); and develop preliminary metrics for assessing small unit soldier and leader performance that are flexible enough to transition as new systems are fielded. In FY04, identify the roles of simulators and live aircraft within a model of simulation-intensive collective aircrew training; formulate principles for training key C4ISR skills; and develop methods to improve small team battlefield visualization to increase situational awareness and avoid situational confusion. In FY05, evaluate prototype simulation-intensive collective aircrew training programs; develop methods for training key C4ISR skills for FCS Unit of Action commanders and staffs; and formulate principles of effective performance measurement in future environments. It will also tailor successful embedded training approaches to assess small unit leader and team decisionmaking and information utilization skills; determine the critical elements to be taught and measured in multi-player simulations to improve performance in asymmetrical scenarios.		7080	7322	7410	7721	
Leader Development: In FY02, improved how thinking skills are developed for mid-level leadership assignments and developed a prototype "Think-Like-A-Commander" to train remote-linked decision groups. In FY03, assess the utility of developing leader interpersonal and teamwork skills using a mix of film, animation, and role playing innovations. In FY04, pilot test an experimental interactive program to develop socially competent and conceptually adaptable leaders and develop tools for assessing adaptability in real-world operations. In FY05, test interactive tools to enhance team effectiveness through more accurate communication and understanding of commander (battalion and brigade) and team member intent and refine measures of effective leader skills.		3628	1885	4063	4011	
Totals		14367	13070	15548	15607	